



## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification: <b>G06F</b>	<b>A2</b>	(11) International Publication Number: <b>WO 00/34841</b> (43) International Publication Date: 15 June 2000 (15.06.2000)
(21) International Application Number: PCT/US99/28648 (22) International Filing Date: 03 December 1999 (03.12.1999) (30) Priority Data: 09/205,666 04 December 1998 (04.12.1998) US (60) Parent Application or Grant PRICELINE.COM INCORPORATED [/]; O. WALKER, Jay, S. [/]; O. CASE, T., Scott [/]; O. TEDESCO, Daniel, E. [/]; O. HANCHUK, Walter, G. ; O.		<b>Published</b>
(54) Title: CUSTOMER PROFIT SHARING CONDITIONAL PURCHASE OFFER (CPO) MANAGEMENT SYSTEM (54) Titre: SYSTEME DE GESTION D'OFFRES D'ACHAT CONDITIONNELLES PAR INTERESSEMENT DES CLIENTS  (57) Abstract <p>A customer profit sharing conditional purchase offer (CPO) management system is disclosed for processing CPOs received from one or more buyers for a product. The system processes each received CPO to determine whether one or more sellers are willing to accept a given CPO. The customer profit sharing CPO management system is operated to share the profit that is earned from a given conditional purchase offer with the buyer by returning a portion of the profit to the buyer in the form a buyer discount. The buyer discount can be, for example, in the form of (i) a monetary discount to the current transaction, (ii) a rebate, or (iii) a coupon or credit that may be redeemed for a discount against future transactions.</p> (57) Abrégé <p>L'invention concerne un système de gestion d'offres d'achat conditionnelles par intéressement des clients, ce système étant destiné à traiter des offres d'achat conditionnelles provenant d'un ou de plusieurs acheteurs pour un produit. Le système traite chaque offre d'achat conditionnelle reçue pour déterminer si un ou plusieurs vendeurs sont prêts à accepter une offre d'achat conditionnelle donnée. Le système de gestion d'offres d'achat conditionnelles par intéressement des clients permet de partager avec l'acheteur le bénéfice réalisé pour une offre d'achat conditionnelle donnée en rendant à l'acheteur une partie du bénéfice, sous forme de remise accordée à l'acheteur. La remise accordée à l'acheteur peut être, par exemple, sous forme: (i) de remise de prix pour la transaction en cours; (ii) de rabais; ou (iii) de bon ou de crédit pouvant être échangé contre une remise lors de transactions futures.</p>		

PCT

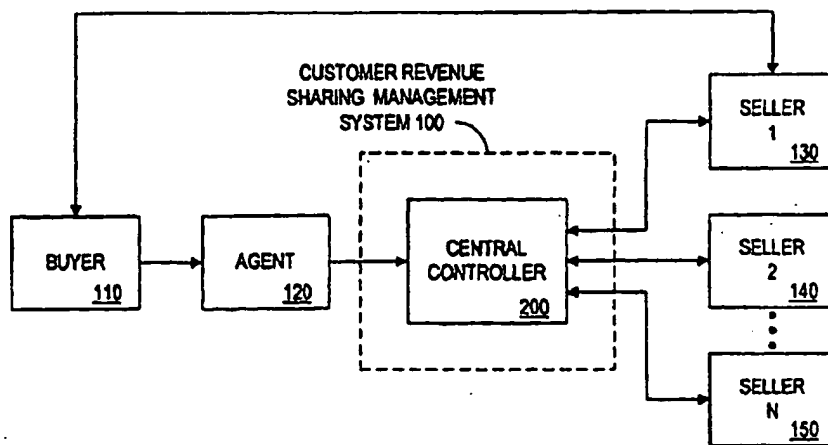
WORLD INTELLECTUAL PROPERTY ORGANIZATION  
International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification <sup>7</sup> : <b>G06F</b>	<b>A2</b>	(11) International Publication Number: <b>WO 00/34841</b> (43) International Publication Date: <b>15 June 2000 (15.06.00)</b>
(21) International Application Number: <b>PCT/US99/28648</b> (22) International Filing Date: <b>3 December 1999 (03.12.99)</b> (30) Priority Data: <b>09/205,666</b> <b>4 December 1998 (04.12.98)</b> <b>US</b> (71) Applicant: <b>PRICELINE.COM INCORPORATED [US/US];</b> <b>Five High Ridge Park, Stamford, CT 06905-1326 (US).</b> (72) Inventors: <b>WALKER, Jay, S.; 124 Spectacle Lane, Ridgefield,</b> <b>CT 06877 (US). CASE, T., Scott; 29 Anthony Lane, Darien,</b> <b>CT 06820 (US). TEDESCO, Daniel, E.; Apartment 6, 192</b> <b>Park Street, New Canaan, CT 06840 (US).</b> (74) Agent: <b>HANCHUK, Walter, G.; Morgan &amp; Finnegan, L.L.P.,</b> <b>345 Park Avenue, New York, NY 10154 (US).</b>		(81) Designated States: <b>AE, AL, AM, AT, AU, AZ, BA, BB, BG,</b> <b>BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE,</b> <b>ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,</b> <b>KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD,</b> <b>MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD,</b> <b>SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ,</b> <b>VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW,</b> <b>SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY,</b> <b>KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH,</b> <b>CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,</b> <b>PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN,</b> <b>GW, ML, MR, NE, SN, TD, TG).</b>  <b>Published</b> <i>Without international search report and to be republished upon receipt of that report.</i>

(54) Title: **CUSTOMER PROFIT SHARING CONDITIONAL PURCHASE OFFER (CPO) MANAGEMENT SYSTEM**



(57) Abstract

A customer profit sharing conditional purchase offer (CPO) management system is disclosed for processing CPOs received from one or more buyers for a product. The system processes each received CPO to determine whether one or more sellers are willing to accept a given CPO. The customer profit sharing CPO management system is operated to share the profit that is earned from a given conditional purchase offer with the buyer by returning a portion of the profit to the buyer in the form a buyer discount. The buyer discount can be, for example, in the form of (i) a monetary discount to the current transaction, (ii) a rebate, or (iii) a coupon or credit that may be redeemed for a discount against future transactions.

**FOR THE PURPOSES OF INFORMATION ONLY**

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AL	Albania	ES	Spain	LS	Lesotho	SI	Slovenia
AM	Armenia	FI	Finland	LT	Lithuania	SK	Slovakia
AT	Austria	FR	France	LU	Luxembourg	SN	Senegal
AU	Australia	GA	Gabon	LV	Latvia	SZ	Swaziland
AZ	Azerbaijan	GB	United Kingdom	MC	Monaco	TD	Chad
BA	Bosnia and Herzegovina	GE	Georgia	MD	Republic of Moldova	TG	Togo
BB	Barbados	GH	Ghana	MG	Madagascar	TJ	Tajikistan
BE	Belgium	GN	Guinea	MK	The former Yugoslav Republic of Macedonia	TM	Turkmenistan
BF	Burkina Faso	GR	Greece			TR	Turkey
BG	Bulgaria	HU	Hungary	ML	Mali	TT	Trinidad and Tobago
BJ	Benin	IE	Ireland	MN	Mongolia	UA	Ukraine
BR	Brazil	IL	Israel	MR	Mauritania	UG	Uganda
BY	Belarus	IS	Iceland	MT	Malawi	US	United States of America
CA	Canada	IT	Italy	MX	Mexico	UZ	Uzbekistan
CF	Central African Republic	JP	Japan	NE	Niger	VN	Viet Nam
CG	Congo	KE	Kenya	NL	Netherlands	YU	Yugoslavia
CH	Switzerland	KG	Kyrgyzstan	NO	Norway	ZW	Zimbabwe
CI	Côte d'Ivoire	KP	Democratic People's Republic of Korea	NZ	New Zealand		
CM	Cameroon			PL	Poland		
CN	China	KR	Republic of Korea	PT	Portugal		
CU	Cuba	KZ	Kazakhstan	RO	Romania		
CZ	Czech Republic	LC	Saint Lucia	RU	Russian Federation		
DE	Germany	LI	Liechtenstein	SD	Sudan		
DK	Denmark	LK	Sri Lanka	SE	Sweden		
EE	Estonia	LR	Liberia	SG	Singapore		

**Description**

**5**

**10**

**15**

**20**

**25**

**30**

**35**

**40**

**45**

**50**

**55**

**CUSTOMER PROFIT SHARING CONDITIONAL PURCHASE  
OFFER (CPO) MANAGEMENT SYSTEM**

This application is a continuation-in-part of U.S. Patent Application Serial No. 08/943,483 filed October 3, 1997, which is a continuation-in-part of U.S. Patent Application Serial No. 08/923,683 filed September 4, 1997, which is a continuation-in-part of U.S. Patent Application Serial No. 08/889,319, filed July 8, 1997, which is a continuation-in-part of U.S. Patent Application Serial No. 08/707,660, filed September 4, 1996, now issued U.S. Patent No. 5,794,207, each of which is incorporated in its entirety by reference herein.

**Field of the Invention**

The present invention relates generally to a system for processing the sale of products and, more particularly, to methods and apparatus for processing the sale of products, such as airline tickets and automobiles, to buyers who have submitted a conditional purchase offer for the purchase of such products.

**Background of the Invention**

Most systems for processing the sale of products are seller-driven, whereby the seller prices, packages, configures and offers the product for sale, and the buyer decides whether or not to accept the seller's offer. In a buyer-driven system, however, the buyer dictates the terms of the offer and one or more sellers decide whether or not to accept the offer. A "help wanted" advertisement, for example, is a buyer-driven inquiry since the employer is looking to locate and buy the services of a qualified employee. The inquiry is advertised to a large number of potential employees, who may respond by submitting their resumes to the prospective employer.

Priceline.com, Incorporated of Stamford, CT is a merchant that has successfully implemented a buyer-driven system for the sale of products, such as airline tickets and automobiles. Priceline.com utilizes a Conditional Purchase Offer (CPO) Management System, described in the parent and grandparent applications to the present invention, that processes conditional purchase offers received from individual buyers. These conditional purchase offers contain one or more buyer-defined conditions for the purchase of goods or services, at a buyer-

5 defined price. They are typically guaranteed by a general-purpose account, such as a debit or  
credit account, and thereby provide sellers with a mechanism for enforcing any agreement that  
may be reached with the buyer. The conditional purchase offers are provided by the CPO  
10 Management System to sellers, either directly or using seller-supplied rates, for individual sellers  
5 to either accept or reject. If a seller accepts a conditional purchase offer, the CPO Management  
System binds the buyer on behalf of the accepting seller, to form a legally binding contract.

15 Thus, the CPO Management System empowers individual buyers to obtain goods  
and services at a price set by the buyer. The CPO Management System provides numerous  
commercial advantages to sellers as well. For example, the CPO Management System permits  
10 individual sellers to effectively sell excess capacity when actual demand fails to meet forecasted  
demand. In particular, the CPO Management System provides an effective mechanism for  
20 sellers to be confident that if they accept a buyer's offer, the buyer will purchase the requested  
goods or services at the agreed-upon price, and not just use the information to ascertain the  
seller's underlying level of price flexibility, which, if known to a seller's competitors or  
25 customers, could impact the seller's overall profit structure.

For many transactions, the CPO Management System will effectively complete  
transactions in this manner. Typically, however, a percentage of buyers will submit purchase  
30 offers that are not acceptable to any seller, typically because the price offered by the buyer is too  
low. The success of the CPO Management System depends, at least in part, on its utilization by  
20 a large number of both buyers and sellers. Specifically, buyers are incented to submit  
conditional purchase offers if they know the conditional purchase offers will be reviewed by a  
35 large number of potential sellers. Sellers are incented to consider conditional purchase offers if  
they can expect a large number of attractive offers. In addition to being a lost business  
opportunity, unacceptable conditional purchase offers require buyers and sellers to spend time  
40 25 submitting and reviewing such conditional purchase offers. Thus, buyers and sellers alike may  
be frustrated and discouraged from utilizing the CPO Management System, if the acceptance  
rate for submitted conditional purchase offers does not meet satisfactory levels.

45 While buyers are empowered by the ability to "name their own price" using a  
buyer-driven commerce system, buyers may be wary when it comes to deciding what price to  
30 offer for a given product. For example, buyers may be concerned that their offer price is too

low to be acceptable by a seller. That is, buyers may be afraid that their offer may be a wasted attempt to purchase the sought-after product because their offer price may be less than any seller's acceptable floor price. On the other hand, buyers may also be concerned that they are spending more than necessary and that their offer price is too high for the sought-after product.

As a result, a buyer-driven commerce system, such as Priceline, encourages buyers to become educated about the current market price for the sought-after product before submitting a conditional purchase offer. Since the CPO Management System permits sellers to sell excess capacity without revealing the seller's underlying level of price flexibility, sellers may nonetheless be willing to sell the sought-after product at a price below the market price. Thus, it is difficult for buyers to accurately predict an appropriate offer price.

In addition, since a buyer-driven system, such as Priceline, often relies on an intermediary between buyers and sellers buyers may be hesitant to submit conditional purchase offers at all, out of fear that the intermediary will profit from a mistakenly high offer price. Consequently, there exists a need for a system and method that reduce consumer anxiety associated with submitting conditional purchase offers.

#### Summary of the Invention

A customer profit sharing conditional purchase offer (CPO) management system, hereinafter referred to as the CPO system, is disclosed for processing CPOs received from one or more buyers for a product. The CPO system processes each received CPO to determine whether one or more sellers are willing to accept a given CPO. A portion of the profit derived from a sale is returned to the Buyer.

According to one aspect of the invention, the CPO system is operated to share the profit that is earned from a given conditional purchase offer with the buyer and thereby reduce consumer anxiety associated with submitting conditional purchase offers. The present invention operates to reassure a buyer that the CPO management system will not benefit to the detriment of the buyer from an excessive profit derived from an accepted conditional purchase offer. The CPO system returns a predefined portion of the Transaction Profit generated from a conditional purchase offer to the buyer in the form of a Buyer Discount.

5                   The Buyer Discount, or portion of the Transaction Profit returned to the buyer,  
can be set at any value and may vary based on product category. In addition, the Buyer  
Discount can be dynamically adjusted according to historic shopping patterns of a given buyer.  
10                   Thus, the CPO system can be implemented as a loyalty reward program that progressively  
5 increases the Buyer Discount each time the buyer submits a conditional purchase offer. In  
addition, the Buyer Discount can be dynamically adjusted according to market conditions or in  
accordance with a fee paid by the buyer when the CPO is submitted.

15                   The Buyer Discount can be returned to the buyer, for example, in the form of (i)  
a monetary discount to the current transaction, (ii) a rebate, or (iii) a coupon or credit that may  
10 be redeemed for a discount against future transactions. The total transaction profit may be  
allocated among the operator of the CPO system, the buyer and the seller, as desired, in  
20 accordance with predefined parameters.

25                   A more complete understanding of the present invention, as well as further  
15 features and advantages of the present invention, will be obtained by reference to the following  
detailed description and drawings.

#### **Brief Description of the Drawings**

30                   FIG. 1 is a schematic block diagram illustrating a customer profit sharing  
conditional purchase offer (CPO) management system in accordance with the present invention;

20                   FIG. 2 is a schematic block diagram of the exemplary central controller of FIG.  
1;

35                   FIG. 3 illustrates a sample table from the seller database of FIG. 2;

                  FIG. 4 illustrates a sample table from the buyer database of FIG. 2;

                  FIG. 5 illustrates a sample table from the offer database of FIG. 2;

40                   FIG. 6 illustrates a sample table from the seller rules database of FIG. 2;

25                   FIGS. 7A-C together comprise a flowchart describing an exemplary CPO  
evaluation process implemented by the central controller of FIG. 2; and

45                   FIG. 8 is a flowchart describing an exemplary rules evaluation subroutine  
implemented by the central controller of FIG. 2.



**Detailed Description**

FIG. 1 shows a customer profit sharing conditional purchase offer (CPO) management system 100, hereinafter referred to as the CPO system 100, for receiving and processing CPOs for one or more goods or services, from one or more buyers 110 or agents 120 (on behalf of buyers 110). The CPO system 100 determines whether one or more sellers, such as sellers 130, 140, 150 are willing to accept a given CPO. As discussed further below, if a seller accepts a given CPO, the CPO system 100 is operated to bind the buyer on behalf of the accepting seller, to form a legally binding contract.

**CPO TERMINOLOGY**

As used herein, the following terms are defined to mean:

**Agency-Based Seller** - A seller who has delegated authority to the customer profit sharing CPO management system operator to accept or reject a given CPO using seller-defined CPO Rules.

**Broadcast-Based Seller** - A seller who has received a CPO from the customer profit sharing CPO management system (directly or by, for example, access to an electronic posting) for evaluation.

**Conditional Purchase Offer (CPO)** - An offer containing one or more conditions submitted by a buyer for the purchase of goods and/or services at a buyer-defined price.

**Binding Conditional Purchase Offer (Binding CPO)** - A binding offer containing one or more conditions submitted by a buyer for the purchase of goods and/or services at a buyer-defined price. As compared to a CPO, a Binding CPO includes a payment guarantee, for example with a General Purpose Account, and authorization to debit the Account upon acceptance of the CPO.

**Buyer Discount** - A portion of the Transaction Profit arising from a CPO-based transaction that is returned to the Buyer. As is noted below, a Buyer Discount may be returned to a Buyer in one of many different forms.

**Conditional Purchase Offer (CPO) Rule** - A restriction defined by an Agency-Based Seller under which the operator of the customer profit sharing CPO management system may act as an agent to determine whether to fill a CPO for that Agency-Based Seller.

5 CPO Management System - One or more controllers that receive and process CPOs for one or more goods or services, from one or more buyers, to determine if one or more sellers (Agency-Based or Broadcast-Base Sellers) are willing to accept a CPO.

10 General Purpose Account - Any account from which payment can be made, including a credit or debit account.

Transaction Profit - The difference between a buyer offer price and a seller price. The Transaction Profit may be divided in many different manners, including as profit to the CPO system operator (who may or may not be the seller of the products), as profit to the seller (if different from the CPO system operator), and/or as a discount to the buyer. In the present invention, the CPO system operator is described as a separate party from the seller. It is noted that "profit" may be positive or negative, a negative profit indicating a loss on a transaction. Negative profits may be realized, for example, when a buyer offer is subsidized to facilitate a transaction.

15 According to one embodiment of the present invention, the CPO system 100 is operated to share the Transaction Profit that is earned from a given conditional purchase offer with the buyer, in the form of the Buyer Discount. Thus, a buyer can have some level of confidence that the CPO system 100 will not benefit from an excessive profit derived from an accepted conditional purchase offer. As such, operators of the CPO system 100 may advertise that buyers will receive a predefined portion of the profit generated from their conditional purchase offer(s).

35 In one example, a buyer submits a Conditional Purchase Offer for a given product with an offer price of two hundred dollars (\$200.00) to a CPO system 100 that returns fifty percent (50%) of the Transaction Profit to the buyer in the form of a specified Buyer Discount. The lowest acceptable price of any seller is found to be one hundred and fifty dollars (\$150.00). The buyer is thus provided a Buyer Discount of fifty percent of the Transaction Profit, or 50% of \$50 = \$25. In this example, the Buyer Discount is applied to the immediate transaction in the form of a monetary discount, and the buyer is only charged one hundred and seventy five dollars (\$175.00), in lieu of his offer price of \$200, to complete the transaction.

5 In different embodiments, the Transaction Profit may be allocated in differing portions amongst the profit realized by the operator of the customer profit sharing CPO management system, the discount provided to the buyer and the profit realized by the seller, as desired, in accordance with specified parameters.

10 5 The Buyer Discount can be set at any value and may vary based on product category. In addition, the Buyer Discount can be dynamically adjusted according to historic shopping patterns of a given buyer. For example, the CPO system 100 can be implemented as a loyalty reward program that progressively increases the Buyer Discount each time the buyer submits a conditional purchase offer. In addition, the Buyer Discount can be dynamically  
15 adjusted according to market conditions. For example, a sudden increase in market prices may warrant a reduction in the Buyer Discount, thereby providing control over the profit stream recognized by the operator of the CPO system 100. In further variations, the Buyer Discount may be determined based on a fee paid by the buyer when submitting a CPO or based on a convenience rating or quality rating of the product delivered to the buyer. For example, a buyer  
20 may receive a higher Buyer Discount in an airline implementation if the buyer is required to change planes or have a stop-over on the flight.

25 15 The Buyer Discount can be returned to the buyer in one of many forms. In a first form, for example, the Buyer Discount is provided as a monetary discount to the current transaction, wherein a sum less than the buyer offer price can be charged to the buyer. It will be  
30 understood that the desired CPO operator profit, and hence the value of the Buyer Discount, may be determined, for example, as a percent of the Transaction Profit, or as a fixed dollar minimum. In another embodiment, the Buyer Discount is provided as a rebate returned to the buyer after the consummation of the transaction. In yet another embodiment, the Buyer  
35 Discount may be provided in the form of a coupon or credit provided to the buyer that may be redeemed for a discount against future transactions. Many other methods of applying a discount to a sales transaction are known to those skilled in the art.

40 25 In yet another embodiment, the Transaction Profit may be split in some predetermined manner between the CPO system operator, the buyer, and the seller. It will be  
45 understood that such profit sharing with a seller would typically be in addition to any profits built into a seller's selling price. In a further variation on splitting some portion of the profits  
50

5 with a seller, the portion of the profit allocated to the seller can be dynamically determined so that the more conditional purchase offers that a seller accepts, the higher the margin the seller receives, thereby encouraging sellers to participate in the buyer-driven system.

10 As shown in FIG. 1, the CPO system 100 includes a central controller 200.  
5 discussed further below in conjunction with FIG. 2. The CPO system 100 may provide a given CPO to selected sellers 130, 140, 150 based on predefined screening criteria, so that sellers only obtain CPOs that they may be interested in or are authorized to screen. Alternatively, the CPO  
15 system 100 may provide all CPOs to all sellers for screening.

As discussed further below, each buyer 110 contacts the CPO system 100, for  
10 example, by means of telephone, facsimile, online access (i.e. the Internet), electronic mail, in-person contact or through an agent, and provides the CPO system 100 with the terms of the  
20 buyer's CPO. It is noted that each buyer 110 and seller 130, 140, 150 may employ a general-purpose computer for communicating with the CPO system 100. The general-purpose computer may be comprised of a processing unit, a modem, memory means and any software required to  
25 communicate with the CPO system 100.

The CPO system 100, as well as any general-purpose computers utilized by  
buyers 110 or sellers 130, 140, 150 (collectively, the "nodes") transmit digitally encoded data  
30 and other information between one another. The communication links between the nodes can comprise, for example, a cable, fiber or wireless link on which electronic signals can propagate.

#### 20 AGENCY AND BROADCAST-BASED SELLERS

According to one feature of the present invention, the CPO system 100 provides  
35 an optional agency feature that permits the CPO system 100 to accept or reject a given CPO on behalf of certain agency-based sellers 130 who have delegated such authority to the CPO system 100. Thus, the CPO system 100 (i) evaluates CPOs on behalf of certain agency-based sellers  
40 130 who have delegated authority to the CPO system 100 to accept or reject a given CPO, and (ii) permits broadcast-based sellers, such as sellers 140, 150 to evaluate CPOs independently.

Thus, the CPO system 100 can optionally provide one or more CPOs to each  
broadcast-based seller 140, 150, for the seller 140, 150 to independently determine whether or  
45 not to accept a given CPO. It is noted that the CPO system 100 can provide a CPO to each  
30 appropriate broadcast-based seller 140, 150, for example, by means of a broadcast transmission,

5 or by means of posting the CPO, for example, on an electronic bulletin board or secure web site accessible by each broadcast-based seller 140, 150. Alternatively, the CPO system 100 can evaluate one or more CPOs against a number of CPO rules defined by one or more agency-based sellers 130, to decide on behalf of an agency-based seller 130 whether to accept or reject a  
10 given CPO. An illustrative set of CPO rules for one illustrative agency-based seller 130 is set forth in FIG. 6. Thus, the CPO system 100 can determine if one or more sellers 140, 150 accepts a given CPO by providing the CPO to each seller 140, 150 and receiving an acceptance or rejection, or by applying the CPO to the CPO rules to render a decision to either accept, reject or counter a CPO on behalf of a particular seller 130.

15  
20 As discussed further below, a CPO rule is a set of restrictions defined by a given agency-based seller 130 under which the seller 130 is willing to accept a CPO. For a more detailed discussion of CPO rules, the manner in which they are generated, and related security issues, see U.S. Patent Application Serial No. 08/889,319, entitled Conditional Purchase Offer Management System, filed July 8, 1997, referenced herein above.

25 15 A CPO can optionally contain one or more buyer-defined variable or flexible conditions, typically specified using a range, which may be filled within the discretion of the seller. For example, the variable condition may be a date range within which the product may be delivered by the seller. Other variable conditions might include a price range, a performance  
30 range or a quality range. The seller may then choose a product to fill the buyer's flexible condition within the specified range. Such a variable condition may provide substantial assistance to the seller in filling the buyer's CPO. For example, with respect to an airline ticket, the seller may be able to meet a buyer's specified price if the CPO permits the seller to select a flight within a range of times or days.

40 25 It is desirable that in one embodiment the present invention prevents buyers from repetitively querying, or "pinging," the CPO system 100 to determine the underlying price flexibility of the sellers. Such pinging might result in potential damage to the seller's price margins and profitability. As mentioned above, a binding CPO discourages pinging by ensuring that if an offer is accepted, the buyer must actually purchase the product. Another method of discouraging pinging includes preventing buyers from submitting repetitive, similar offers. For  
45 30 example, repetitive CPOs that change only the offer price in an effort to determine price

5 flexibility may be blocked by the system. In one embodiment, subsequent CPOs by the same  
buyer are accepted by the CPO system 100 only if there is some substantial change to the buyer  
specifications that would result in the purchase of an essentially different product. For example,  
10 with respect to the sale of airline tickets, subsequent CPOs may be accepted for processing only  
5 if there is a significant change in the itinerary. Yet another method for discouraging ping-pong is to  
require a payment or fee for each submission of a CPO.

15 In one embodiment of the invention, seller identities are maintained anonymous  
within the CPO system 100 until a CPO is accepted. Such seller anonymity, by itself and in  
combination with the discouragement of price ping-pong discussed above, enables sellers to  
10 participate in the CPO process without fear of undercutting their published price structures and  
losing their regular customer base. For example, most retailers have published product prices,  
20 and loyal customers who willingly pay those prices. Participating in the CPO system 100  
enables a seller to discount those products, potentially below its published prices, to fill offers  
from buyers who might not otherwise pay published prices. With anonymity, these sellers can  
25 15 more freely participate in the CPO process with less fear of losing their regular customers and  
undercutting their published price structure.

FIG. 2 is a block diagram showing the architecture of an illustrative central  
30 controller 200. The central controller 200 includes certain standard hardware components, such  
as a central processing unit (CPU) 205, a random access memory (RAM) 210, a read only  
20 memory (ROM) 220, a clock 225, a data storage device 230, and a communications port 240.  
The CPU 205 may be linked to each of the other listed elements, either by means of a shared  
35 data bus, or dedicated connections, as shown in FIG. 2. The communications port 240 connects  
the central controller 200 to each buyer 110 and seller 130 and optionally to remote credit  
processing servers. The communications port 240 can include multiple communication channels  
40 25 for simultaneously establishing a plurality of connections.

The ROM 220 and/or data storage device 230 are operable to store one or more  
instructions, discussed further below in conjunction with FIGS. 7 and 8, which the CPU 205 is  
operable to retrieve, interpret and execute. For example, the ROM 220 and/or data storage  
45 device 230 store processes to accomplish the transfer of required payments, charges and debits.

5 between the sellers 130 and buyers 110. The processing of such accounting transactions can be secured in a conventional manner, for example, using well-known cryptographic techniques.

As discussed further below in conjunction with FIGS. 3 through 6, respectively,  
10 the data storage device 230 includes a seller database 300, a buyer database 400, an offer database 500 and a seller rules database 600. The seller database 300 stores information on each seller 130, 140, 150 which is registered with the CPO system 100 to sell products, i.e., goods and/or services to CPO buyers, including contact information. The buyer database 400 stores  
15 information on each buyer transacting business through the CPO system 100, including identification information and billing information, such as a credit card number or another general-purpose account identifier. The offer database 500 contains a record of each CPO being  
20 processed by the CPO system 100, including the conditions associated with the CPO and the associated status. The seller rules database 600 maintains the CPO rules for one or more agency-based sellers 130. In addition, the data storage device 230 may also include a table (not shown) for storing predetermined rules and/or criteria for splitting/distributing Transaction  
25 Profits between CPO system operator profits, seller profits (if any) and Buyer Discounts.

In addition, the data storage device 230 includes a CPO evaluation process 700 and a rules evaluation subroutine 800, discussed further below in conjunction with FIGS. 7 and  
30 8, respectively. Generally, the CPO evaluation process 700 includes the steps of (i) receiving each CPO from a buyer 110, (ii) determining the transaction margin and allocates an appropriate portion of the margin to the buyer, (iii) providing each CPO to the appropriate broadcast-based  
20 sellers and evaluates each CPO against the appropriate rules of each agency-based seller, and (iv) determining whether any sellers 130, 140, 150 accept the CPO. The rules evaluation subroutine 700 is a subroutine executed by the CPO evaluation process 700, which receives a  
35 CPO and compares the CPO against the rules of one or more agency-based sellers to generate a response on behalf of the sellers to the given CPO.  
40

#### DATABASES

FIG. 3 illustrates an exemplary seller database 300 that stores information on  
45 each seller which is registered with the CPO system 100 to sell products, i.e., goods and/or services to CPO buyers. The seller database 300 maintains a plurality of records, such as  
30 records 305-330, each associated with a different seller. For each seller identifier listed in field

340, the seller database 300 includes the corresponding seller name in field 350, as well as a CPO tracking number and a seller account number in fields 360 and 370, respectively. It is noted that the seller identifier stored in field 340 may be utilized, for example, to index the offer database 500 to identify CPOs which have been accepted by the corresponding seller.

FIG. 4 illustrates an exemplary buyer database 400 that stores information on each buyer transacting business through the CPO system 100, including biographical information and billing information, such as a credit card number or another general purpose account identifier. The buyer database 400 maintains a plurality of records, such as records 405-415, each associated with a different buyer. For each buyer identifier in field 420, the buyer database 400 includes the corresponding buyer name and address in fields 430 and 440, respectively, and credit card account number in field 450. In addition, the buyer database 400 includes the CPO tracking numbers associated with the buyer in field 460. The buyer identifier stored in field 420 may be utilized, for example, to index a historical database (not shown) of previous purchases and CPOs associated with the buyer.

FIG. 5 illustrates an offer database 500 that contains a record of each CPO being processed by the CPO system 100, including the subject and conditions of each CPO and the associated status. The offer database 500 maintains a plurality of records, such as records 505-525, each associated with a different CPO. For each CPO number listed in field 540, the offer database 500 includes an identifier of the buyer associated with the CPO in field 545, as well as the subject and conditions of the CPO in fields 550 and 555, respectively. In addition, the offer database 500 can record the buyer-specified CPO price and current status in fields 565 and 575, respectively. The current status options recorded in field 575 include, for example, pending (or active), accepted, rejected or expired.

FIG. 6 illustrates a seller rules database 600 that maintains the CPO rules for one or more agency-based sellers. The seller rules database 600 maintains a plurality of records, such as records 605-615, each associated with a different CPO rule. For each CPO rule number identified in field 640, the seller rules database 600 identifies the corresponding seller identifier in field 645, as well as the minimum required conditions and price for a CPO to be accepted on behalf of the corresponding seller in fields 650 and 655, respectively.

#### PROCESSES



5 As discussed above, the central controller 200 can execute a CPO evaluation  
process 700 that includes the steps of (i) receiving each CPO from a buyer 110, (ii) determining  
the Transaction Profit and allocating an appropriate portion of that profit to the buyer, (iii)  
10 providing each CPO to the appropriate broadcast-based sellers and evaluating each CPO against  
5 the appropriate rules of each agency-based seller, and (iv) determining whether any sellers 130,  
140, 150 accept the CPO. While CPOs may be binding or nonbinding in nature, the present  
embodiment is described with respect to a binding CPO. The processing of a nonbinding CPO is  
15 substantially identical, with the exception that authorization to charge the buyer credit card  
account (or another general purpose account) may be obtained after a seller acceptance of the  
10 CPO is identified. Alternatively, the process may be identical with the buyer being given the  
option to renege after the CPO is accepted by a seller.

20 As shown in FIG. 7, the CPO evaluation process 700 initially receives a CPO  
from a buyer 110 during step 705. A test is then performed during step 710 to determine if the  
CPO is valid. For example, the test performed during step 710 may determine if the buyer has  
25 15 specified each of the relevant conditions for a given product category.

If it is determined during step 710 that the terms of the CPO are not valid, then  
the buyer is requested to retransmit the CPO during step 720 and program control returns to  
step 705. If, however, it is determined during step 710 that the terms of the CPO are valid, then  
30 an identifier of a general purpose account, such as a credit or debit card account from which  
20 funds may be paid, and an authorization to charge such general purpose account, are received  
during step 715. In this manner, the CPO is guaranteed with a general-purpose account, for  
35 example, using a line of credit on a credit card account. Appropriate legal language can be  
displayed or read to the buyer at the time the CPO is received, to form a binding CPO.

A test is then performed during step 725 to determine if the payment identifier is  
40 25 valid. For example, the payment identifier may be transmitted to a remote credit card server for  
pre-authorization or the like. If it is determined during step 725 that the payment identifier is  
not valid, then the buyer is requested to retransmit a different payment identifier during step 730  
and program control returns to step 715. If, however, it is determined during step 725 that the  
45 payment identifier is valid, then the CPO system 100 performs a further test during step 735 to  
30 determine if the offer price specified by the buyer is greater than or equal to an acceptable seller

5 price. An acceptable seller price may be obtained, for example, by analyzing similar CPOs  
contained in a historical offer database 500. In addition, the acceptable seller price may be  
obtained directly from floor-price information provided by the sellers, including pricing  
10 information recorded in the seller rules database 600 or from published retail prices, such as a  
5 customer reservation system (CRS) or proprietary airline reservation system (ARS) of each  
airline in an airline implementation.

15 If it is determined during step 735 that the offer price specified by the buyer is  
not greater than or equal to an acceptable seller price, then a rejection message is provided to  
the buyer during step 740 before program control terminates during step 745. Alternatively, the  
10 operator of the CPO system 100 or a third party can subsidize the buyer-specified CPO offer  
price to bring it above the determined acceptable seller price. If it is determined during step 735  
20 that the offer price specified by the buyer, as submitted or as subsidized, is greater than or equal  
to an acceptable seller price, then the Transaction Profit is calculated during step 750 by  
subtracting the acceptable seller price from the original offer price. The desired CPO operator  
25 profit is then retrieved from the data storage device 230 or ROM 220 during step 755 (FIG.  
7B). As noted above, this desired profit may be determined in many different ways including,  
for example, a fixed minimum profit, a percentage of the Transaction Profit, or some  
30 combination of a percentage with a fixed minimum. The Buyer Discount is determined during  
step 760 by subtracting the CPO operator profit from the Transaction Profit.

20 The transmitted offer price is calculated during step 765 by subtracting the Buyer  
Discount and the CPO operator profit from the original buyer offer price. It will be understood  
35 that, unless it is decided to share the Transaction Profit in some manner with the seller, the CPO  
system operator profit and the Buyer Discount together will total the Transaction Profit. The  
transmitted offer price is thus equal to the seller asking price as determined in step 735. The  
25 CPO evaluation process 700 then transmits the CPO, together with the calculated transmitted  
offer price, to the broadcast-based sellers and executes the rules evaluation subroutine 800,  
discussed below in conjunction with FIG. 8, for agency-based sellers during step 770.

45 Since the offer price was previously determined to be acceptable to at least one  
seller, at least one acceptance signal is received from one or more sellers during step 775.  
30 Thereafter, the CPO evaluation process 700 selects one accepting seller during step 780 and

5 notifies the corresponding seller during step 784. For example, the accepting seller can be  
selected based upon (i) the priority in which the acceptances are received, (ii) the CPO  
acceptance rate of each seller, (iii) priorities negotiated by each seller, (iv) the acceptance  
10 providing the lowest cost to the buyer, or (v) the highest commission rates paid by the seller to  
5 the CPO system 100.

The buyer's personal information is provided to the seller during step 788 (FIG.  
7C) and the buyer is notified of the acceptance. A test is then performed during step 792 to  
15 determine if the buyer reneges on consummating the transaction. If it is determined during step  
792 that the buyer reneges on consummating the transaction, then a penalty is charged to the  
10 buyer's designated general-purpose account during step 796, before program control terminates  
during step 798. It is noted that for a nonbinding CPO the buyer may be charged a penalty for  
20 failing to complete the transaction in the event the CPO is accepted. For a binding CPO,  
however, the CPO is guaranteed by the general purpose account and it is not possible for the  
buyer to renege. If, however, it is determined during step 792 that the buyer does not renege on  
25 15 consummating the transaction, the buyer discount is returned to the buyer during step 795,  
before program control terminates during step 798.

In the described embodiment, the Buyer Discount is returned to the buyer  
30 through an immediate monetary discount to the buyer offer price. In alternate embodiments, as  
described above, the Buyer Discount may be returned in the form of a rebate or a future credit.

20 In an alternate implementation, the CPO evaluation process 700 can determine an  
acceptable seller price, and whether or not any seller accepts a CPO, in a single step. In other  
35 words, the CPO evaluation process 700 will receive and process a CPO from a buyer in the  
manner described above during steps 705 through 730. However, in this alternate embodiment,  
steps 735 through 765 are not performed, and the CPO is provided to seller during step 770  
40 25 with the buyer-specified CPO offer price. If the CPO is accepted by a seller at a price below the  
buyer-specified CPO offer price, then the appropriate CPO system operator profits and Buyer  
Discount are determined, and the latter is returned to the buyer.

45 As previously indicated, the CPO evaluation process 700 executes a rules  
evaluation subroutine 800 during step 770 to determine if one or more agency-based sellers are  
30 willing to accept a given CPO. As shown in FIG. 8, the rules evaluation subroutine 800

5 compares the terms associated with the CPO during step 810 with the corresponding restrictions  
set forth in any CPO rules defined by any agency-based seller. A test is then performed during  
step 820 to determine if any CPO rule is satisfied. If it is determined during step 820 that no  
10 CPO rule is satisfied, then program control terminates during step 840. If, however, it is  
5 determined during step 820 that a CPO rule is satisfied, the corresponding seiler is identified  
during step 830, before program control terminates during step 840.

15 It is to be understood that the embodiments and variations shown and described  
herein are merely illustrative of the principles of this invention and that various modifications  
may be implemented by those skilled in the art without departing from the scope and spirit of the  
10 invention.

**Claims**

5

10

15

20

25

30

35

40

45

50

55

5           **What is claimed is:**

1.       A method of processing a sale of a product, comprising the steps of:

          receiving from a buyer a conditional purchase offer for said product, said  
conditional purchase offer including at least one buyer-defined condition and an offer price;

10               5           determining a seller price for said product;

          determining a total transaction profit as a function of the difference between said  
offer price and said seller price;

15               determining a buyer discount;

          processing said conditional purchase offer to effect the purchase of said product;

10       and

          returning said buyer discount to said buyer.

2.       A method in accordance with claim 1 wherein said step of determining a seller  
price comprises determining said seller price before said step of processing said conditional  
25               15       purchase offer.

3.       A method in accordance with claim 1 wherein said step of processing said  
conditional purchase order includes the steps of:

30               making said conditional purchase offer available for acceptance by a plurality of  
20       potential sellers; and

          identifying at least one accepting seller.

35               4.       A method in accordance with claim 3 wherein said step of determining a seller  
price is performed after said step of identifying at least one accepting seller.

40               25       5.       A method in accordance with claim 1 wherein said step of determining a buyer  
discount comprises calculating said buyer discount as a function of said total transaction profit.

45               6.       A method in accordance with claim 1 wherein said step of determining a buyer  
30       discount comprises retrieving a stored buyer discount.

5

7. A method in accordance with claim 1 wherein said step of returning said buyer discount comprise the steps of:

10

subtracting said buyer discount from said offer price to provide an adjusted offer price; and

performing said step of processing said conditional purchase offer using said adjusted offer price

15

8. A method in accordance with claim 1 wherein said step of returning said buyer discount comprises providing said buyer a credit for a future transaction.

20

9. A method of processing a sale of a product, comprising the steps of:

receiving from a buyer a conditional purchase offer for said product, said conditional purchase offer including

25

at least one buyer-defined variable condition,

an offer price,

a payment identifier, and

30

authorization to use said payment identifier to pay said offer price;

determining a seller price for said product;

determining a total transaction profit as a function of the difference between said offer price and said seller price;

35

determining a buyer discount;

processing said conditional purchase offer to effect the purchase of said product;

and

40

returning said buyer discount to said buyer.

10. A method in accordance with claim 9 and further including the step of maintaining an identity of at least one seller of said product anonymous from said buyer.

45

11. A method in accordance with claim 9 and further including the steps of:

50

55

5 comparing the elements of said conditional purchase offer to the elements of a  
prior conditional purchase offer previously received from said buyer; and

10 rejecting said conditional purchase offer if said elements of said conditional  
purchase offer are substantially identical to the elements of said prior conditional purchase offer.

5 12. A method in accordance with claim 9 wherein said step of determining a seller  
price comprises determining said seller price before said step of processing said conditional  
15 purchase offer.

10 13. A method in accordance with claim 9 wherein said step of processing said  
conditional purchase order includes the steps of:

20 making said conditional purchase offer available for acceptance by a plurality of  
potential sellers; and

identifying at least one accepting seller.

25 14. A method in accordance with claim 13 wherein said step of determining a seller  
price is performed after said step of identifying at least one accepting seller.

30 15. A method in accordance with claim 9 wherein said step of determining a buyer  
discount comprises calculating said buyer discount as a function of said total transaction profit.

35 16. A method in accordance with claim 9 wherein said step of determining a buyer  
discount comprises retrieving a stored buyer discount.

40 17. A method in accordance with claim 9 wherein said step of returning said buyer  
discount comprise the steps of:

subtracting said buyer discount from said offer price to provide an adjusted offer  
price; and

45 performing said step of processing said conditional purchase offer using said  
30 adjusted offer price.



5

18. A method in accordance with claim 9 wherein said step of returning said buyer discount comprises providing said buyer a credit for a future transaction.

10

5 19. A system for processing a sale of a product, comprising:

a processor;

a memory connected to said processor and storing instructions for controlling said

15

processor;

said processor operative with said instructions in said processor to:

10 receive from a buyer a conditional purchase offer for said product, said conditional purchase offer including at least one buyer-defined condition and an offer price;

20

determine a seller price for said product;

determine a total transaction profit as a function of the difference between said offer price and said seller price;

25

15 determine a buyer discount;

process said conditional purchase offer to effect the purchase of said product;

and

return said buyer discount to said buyer.

30

20 20. A system for processing a sale of a product, comprising:

a processor;

35

a memory connected to said processor and storing instructions for controlling the operation of said processor;

said processor operative with said instructions in said memory to:

25 receive from a buyer a conditional purchase offer for said product, said conditional purchase offer including

40

at least one buyer-defined variable condition,

an offer price,

45

a payment identifier, and

30 authorization to use said payment identifier to pay said offer price;

50

55

- 5                   determine a seller price for said product;  
                  determine a total transaction profit as a function of the difference between said  
offer price and said seller price;  
10                   determine a buyer discount;  
                  5       process said conditional purchase offer to effect the purchase of said product;  
                  and  
                  return said buyer discount to said buyer.  
15
21.   A system for processing a sale of a product, comprising:  
10                   means for receiving from a buyer a conditional purchase offer for said product,  
said conditional purchase offer including at least one buyer-defined condition and an offer price;  
20                   means for determining a seller price for said product;  
                  means for determining a total transaction profit as a function of the difference  
between said offer price and said seller price;  
25                   15       means for determining a buyer discount;  
                  means for processing said conditional purchase offer to effect the purchase of  
said product; and  
30                   means for returning said buyer discount to said buyer.
22.   A system for processing a sale of a product, comprising:  
20                   means for receiving from a buyer a conditional purchase offer for said product,  
35                   said conditional purchase offer including  
                  at least one buyer-defined variable condition,  
                  an offer price,  
40                   25       a payment identifier, and  
                  authorization to use said payment identifier to pay said offer price;  
                  means for determining a seller price for said product;  
                  means for determining a total transaction profit as a function of the difference  
45                   between said offer price and said seller price;  
                  30       means for determining a buyer discount;

5 means for processing said conditional purchase offer to effect the purchase of  
said product; and

means for returning said buyer discount to said buyer.

10 5 23. A computer program product comprising:

a computer usable medium having computer readable program code means  
embodied in said medium for processing a sale of a product, said computer program product  
15 including:

computer readable program code means for receiving from a buyer a conditional  
10 purchase offer for said product, said conditional purchase offer including at least one buyer-  
defined condition and an offer price;

20 computer readable program code means for determining a seller price for said  
product;

25 15 computer readable program code means for determining a total transaction profit  
as a function of the difference between said offer price and said seller price;

computer readable program code means for determining a buyer discount;

30 computer readable program code means for processing said conditional purchase  
offer to effect the purchase of said product; and

20 computer readable program code means for returning said buyer discount to said  
buyer.

35 24. A computer program product comprising:

a computer usable medium having computer readable program code means  
embodied in said medium for processing a sale of a product, said computer program product  
40 25 including:

computer readable program code means for receiving from a buyer a conditional  
purchase offer for said product, said conditional purchase offer including

at least one buyer-defined variable condition,

45 an offer price,

30 a payment identifier, and

5 authorization to use said payment identifier to pay said offer price;  
computer readable program code means for determining a seller price for said  
product;  
10 computer readable program code means for determining a total transaction profit  
5 as a function of the difference between said offer price and said seller price;  
computer readable program code means for determining a buyer discount;  
computer readable program code means for processing said conditional purchase  
15 offer to effect the purchase of said product; and  
computer readable program code means for returning said buyer discount to said  
10 buyer.

20

25

30

35

40

45

50

55

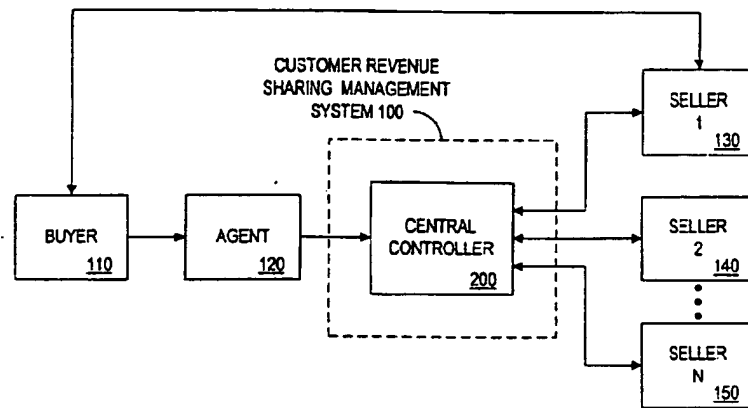


FIG. 1

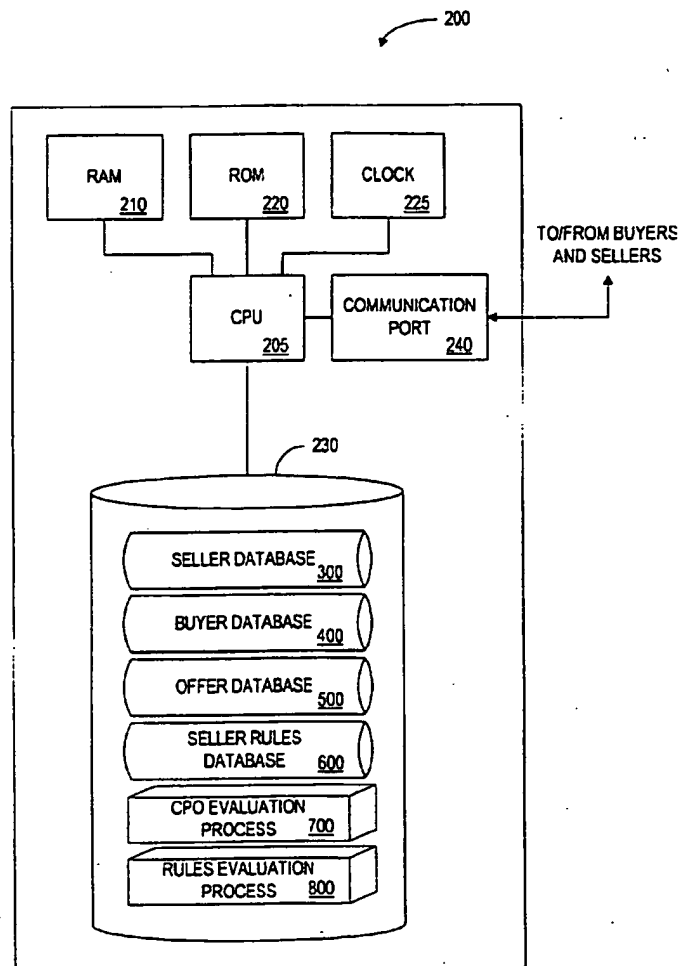


FIG. 2

300

305	SELLER IDENTIFIER 340	SELLER NAME 350	CPO TRACKING NUMBER 360	SELLER ACCOUNT NUMBER 370
310	S67676	AMERICAN AIRLINES	627	7199987
315	S89898	DELTA AIRLINES	-	5567891
320	S45454	AT&T	852	79257431
325	S42929	HERTZ	-	3299467
330	S81818	SHERATON	627	1234567
	S47474	HILTON	--	774368

FIG. 3

400

405 410 415	BUYER IDENTIFIER 420	NAME 430	ADDRESS 440	CREDIT CARD ACCOUNT NUMBER 450	CPO NUMBER(S) 460
	B2222	JOHN SMITH	3 MAIN ST.	2222-2222- 2222-2222	345
	B2223	SUE JOHNSON	4 PINE ST.	3333-3333- 3333-3333	333
	B2224	DAVE MCCARTHY	6 TEMPLE ST.	4444-4444- 4444-4444	627

FIG. 4



500

CPO NUMBER	BUYER IDENTIFIER	SUBJECT	CONDITIONS	CPO PRICE	STATUS
540	545	550	555	565	575
852	B22225	HOTEL ROOM	2 ROOM SUITE BOSTON 8/1/97 - 8/3/97	\$180.00	ACCEPTED
874	B22226	AIRLINE TICKET	RT LAX - JFK LEAVE 9/15/97, RETURN 9/17/97	\$250.00	ACTIVE
627	B22224	AIRLINE TICKET	RT JFK - LAX LEAVE 8/1/97, RETURN 8/7/97	\$200.00	REJECTED
345	B22222	CAR RENTAL	NEW YORK MID-SIZE CAR 8/14/97 - 8/17/97	\$100.00	ACTIVE
333	B22223	AIRLINE TICKET	RT EWR - ORL LEAVE 8/14/97, RETURN 8/21/97	\$150.00	ACTIVE

505

510

515

520

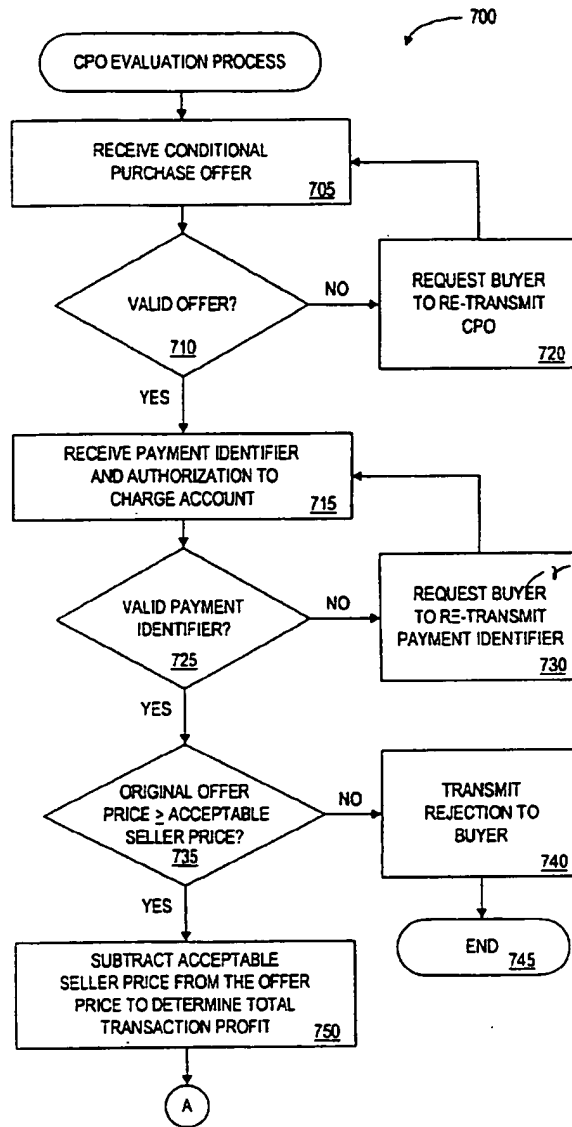
525

FIG. 5

600

605	RULE NUMBER 640	SELLER IDENTIFIER 645	REQUIRED CPO CONDITION(S) 650	MINIMUM PRICE 655
	4572	S47474	WEEKEND CAR RENTAL, NEW YORK, NY, 10/1/98 - 12/31/98	\$225.00
610	5555	S81818	WEEKEND HOTEL, BOSTON, MA, 10/1/98 - 12/31/98	\$99.00/NIGHT DOUBLE OCCUPANCY
615	6523	S89898	ROUND TRIP AIR TRAVEL TO LOS ANGELES, CA, 1/5/99 - 2/22/99; SAT. NIGHT STAY REQUIRED	\$199.00 PER PERSON

FIG. 6



TO FIG. 7B

FIG. 7A

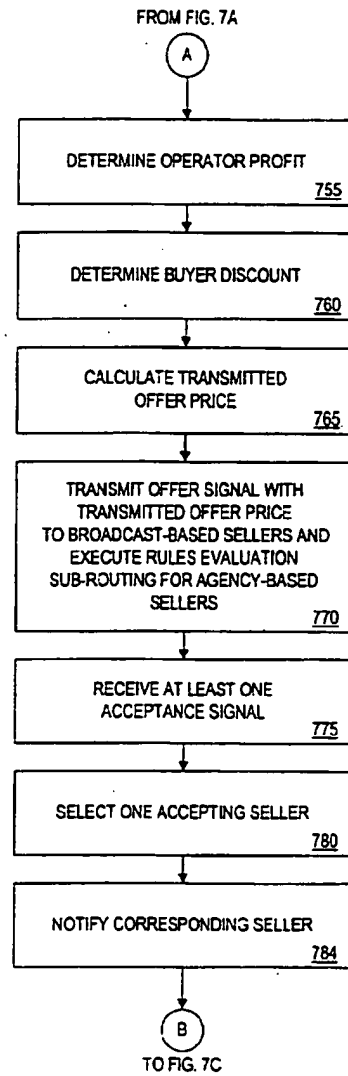


FIG. 7B

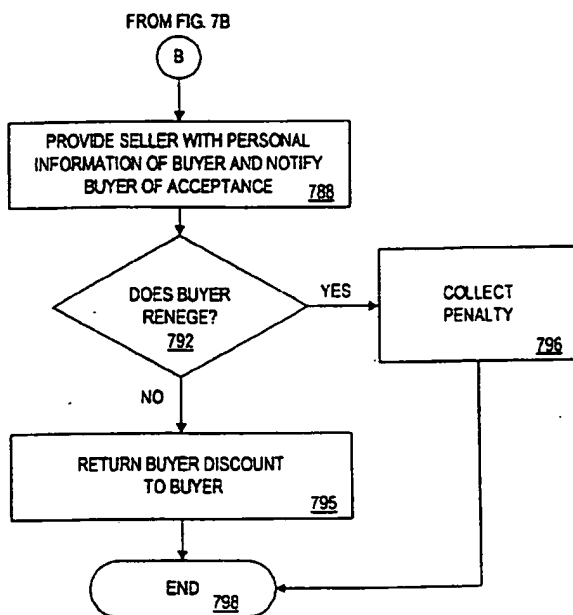


FIG. 7C

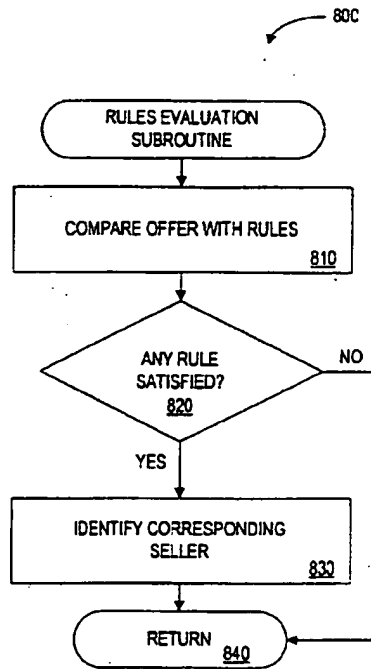


FIG. 8